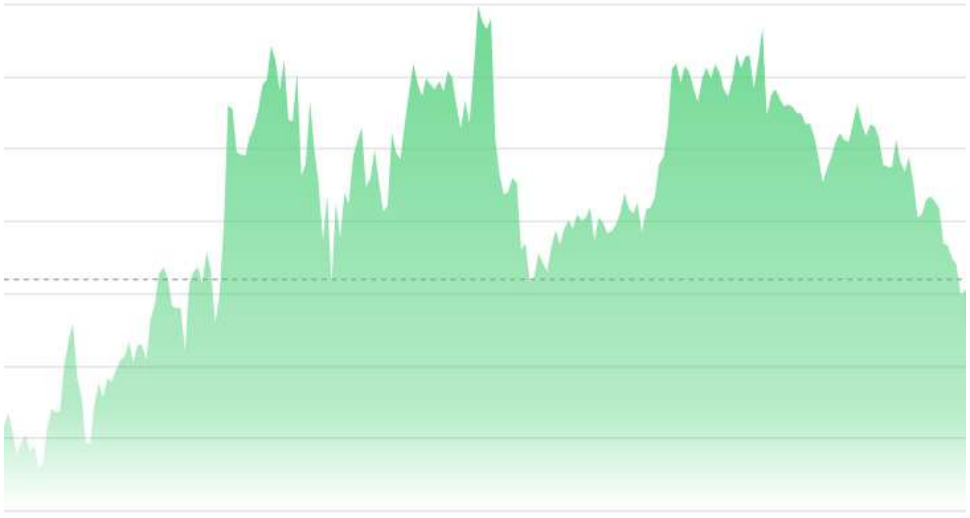
HASHEQUITY

ENTERPRISE SECURITY TOKEN & MARKETPLACE APPLICATION

UTILIZING HEDERA HASHGRAPH DISTRIBUTED LEDGER TECHNOLOGY



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INTRODUCTION

This whitepaper introduces HashEquity: a new security token type and distributed application (“dApp”) under development that resides on the Hedera public ledger and replaces the traditional utility of owning company stock. This project aims to tokenize enterprise equity in the form of security tokens and provide a secure, fast trading platform on the Hedera DLT. A HashEquity token (e.g. "IBM.HE", “MSFT.HE”) imputes enterprise ownership, distributes dividends, and manages voting rights. These tokenized shares can be traded on the HashEquity self-administered enterprise exchange, or bridged to other popular exchanges. This dApp will be a critical enterprise tool to raise capital without the overhead of traditional 3rd party exchanges and brokerages. HashEquity tokens will leverage much faster transaction and settlement time utilizing Hedera DLT. This will enable 24/7 liquidity at a fraction of the cost of traditional exchanges and brokerages. They will enable features to facilitate SEC compliance and transparency from an open public network with ABFT security.

OVERVIEW

Enterprises today issue their primary means of ownership in the form of common and preferred stock, or shareholder certificates. Billions of company shares are transferred daily on public centralized exchanges such as NASDAQ and the New York Stock Exchange. Most retail investors also employ 3rd party custodial brokerage services to act as proxy for holding and trading their shares. This model exhibits multiple 3rd parties between shareholder and enterprise, slow transaction settlement time (days), limited liquidity, poor transparency, and significant cost and energy consumption due to overhead. The future landscape of finance will evolve from this archaic brokerage/exchange services model to a decentralized, tokenized enterprise security, operating on a secured, trusted, transparent and fast (seconds) distributed ledger. HashEquity security tokens on the Hedera network embody this new paradigm of decentralized finance for enterprise ownership. With widescale adoption, equity tokens will eventually eclipse utility tokens in the blockchain landscape in value.

- Greater Liquidity
  24/7 exchange, global accessibility
- Transparency
  Rights, ownership details, transactions are embedded in the token itself and stored on the public ledger
- Affordability
  Fewer intermediaries and less overhead
- Regulatory Compliance
  Built-in safeguards and process to ensure SEC approval and cooperation

The Hedera DLT network demonstrates an overwhelming and sustained capability for fast transaction ordering, predictable and low-cost fee structure, ABFT fault tolerance, and transaction finality in seconds. This makes it a compelling choice as the layer-1 protocol on which to build a new ecosystem of public and private shareholder tokens. This is imperative given the massive use case DeFi applications represents for even partial or limited adoption. For example, even an individual large-cap enterprise trading volume exceeds a million shares per day on centralized exchanges. The Hedera network can carry out all these operations without incurring the cost and time of intermediaries such as banks, brokers or escrow agents. The patented Hedera Hashgraph algorithm confirms transactions in 3-5 seconds, at up to 10,000+ transactions per second ("TPS"), and charges infinitesimally small fees as low as $0.0001 USD for network usage.

Many security tokens require regulation, including public enterprises. HashEquity will provide companies with increased, frictionless, and self-directed liquidity and transparency through SEC compliant tokens. Governance is managed for this token by the board of directors, just as would company stock, with approval and oversight of the SEC.

Using the HashEquity dApp, enterprises will have the tools to mint, release, and sell their own unique token to raise capital and unlock trading of their security on a worldwide platform with global exposure and liquidity. This capital can be converted to fiat currency and allow a company to carry on and grow

their business. The enterprise will accomplish this with full transparency and in compliance with SEC oversight and approval, at a fraction of the cost of utilizing existing exchange and proxy brokerage services.

Equity trading using tokenized ownership can be executed direct to consumer through the dApp's self-service enterprise order book utilizing smart contracts. Additionally, an enterprise HashEquity token order book will have the capability to bridge between existing decentralized exchanges ("DEXs") such as Coinbase, Bittrex, Binance, Kraken, or Bitstamp. This will vastly improve enterprise reach and liquidity.

Services provided for the enterprise use case will include the following actions:

- Mint customized Enterprise HashEquity security (e.g. "IBM_HE", "MSFT_HE", "GOOGL_HE")
- Increase supply through release and sale of HashEquity tokenized securities
- Decrease supply through buy-back and burn of HashEquity tokenized securities
- Determine voting rights and execute voting decisions via Smart Contract
- Operate decentralized self-administered order-book/exchange services
- Bridge and list enterprise HashEquity tokenized securities to public DEXs
- Token-holder Report generation
- Share and distribute enterprise profits as dividend payments in the form of token-holder rewards, such as HashEquity or USDC transfer

This can be done most efficiently, securely, with built-in transparency and compliance, and at the lowest cost, using a distributed ledger. This framework will utilize Hedera Consensus and Token services.

DEPLOYMENT MODEL

Application Architecture

The application will be deployed as a cross-platform desktop Electron and web application. It will leverage Hedera's JavaScript SDK, extending it with its own HashEquity API. IPFS or FileCoin platforms serve as a distributed repository of HashEquity securitized tokens tradable on the exchange. Orderbook implemented via proprietary a search algorithm API to identify all outstanding (open) HashEquity token Smart Contracts transfers, like DragonGlass's service. The dApp indexes, orders, and shares this data with the user as a trading platform.

Hedera Service

The application uses Hedera Token Service to deploy HashEquity fungible tokens on the Hedera Public Ledger. Future application features will take advantage of Hedera's Consensus service to build privately held tokenized equity.

Enterprise Platform

An enterprise version of the dApp offering enterprise features and support will be offered as a proprietary version. It will be supported as a subscription-based service. Utilized by enterprises to mint, manage and offer for sale securitized tokens on a decentralized exchange.

Retail Platform

A version for individual investors and shareholders will enable them to easily trade and verify HashEquity tokens. It will be a free, open-source version of the dApp for individual investors and shareholders to access HashEquity security trading platform and orderbook index.

Adoption

To facilitate adoption, corporations can choose how to structure their HashEquity security token release. An Enterprise may choose to offer these as a standalone form of financing/ownership that is in addition, in place of, and independent of its traditional stock certificates. Alternatively, HashEquity security tokens may be treated as stablecoins that are backed by the asset of collateralized company stock certificates held in reserve.

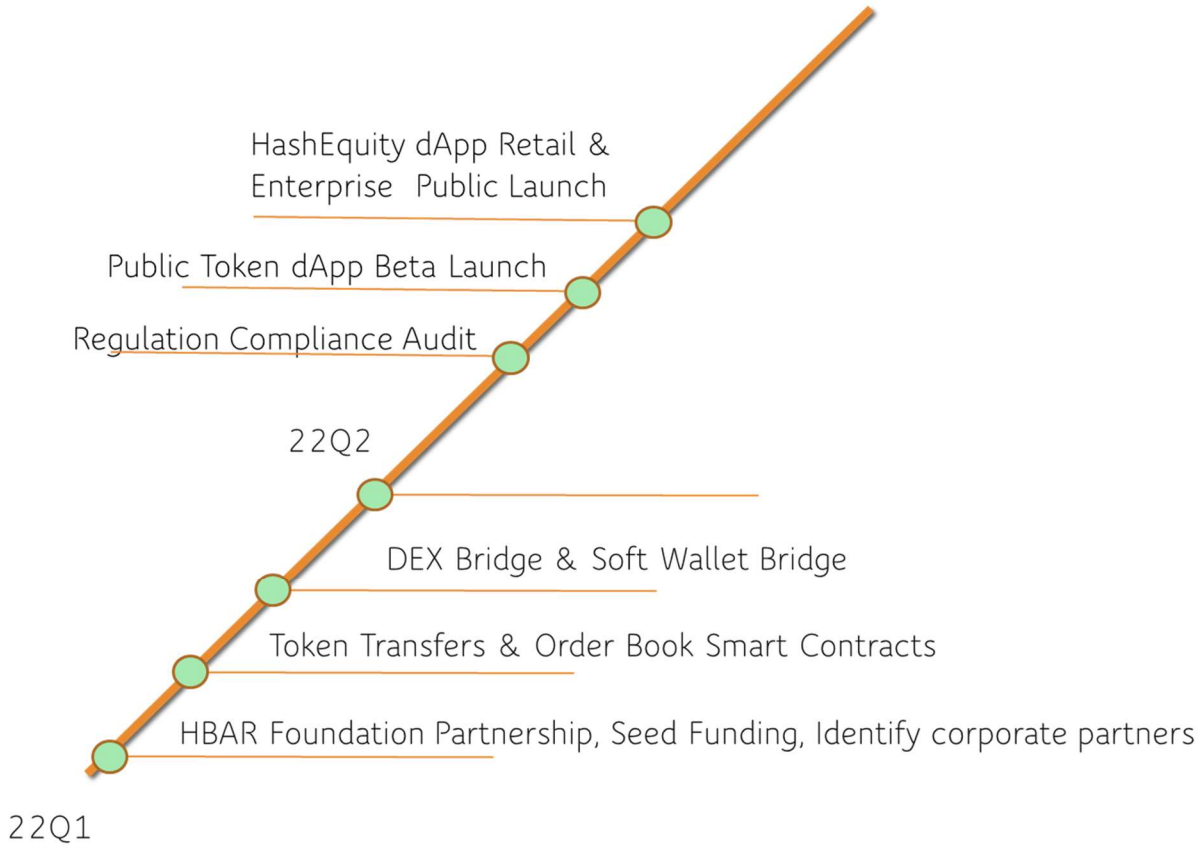
HashEquity Standard

A standard for a HashEquity token will be released. It will detail the required and optional contents of the token memo data. It will include data such as the class (preferred or common stock), voting rights, and

references to legal notices. It will also include standards for creating a smart contract for trading HashEquity tokens.

ROADMAP

For a successful development and rollout, this extensive project will require HBAR Foundation partnership and support. We plan to seek consultation regarding tokenization, compliance, Hedera network capabilities and optimizing network speed, project marketing, and help to engage enterprises and encourage adoption. With the right resources in place we believe the roadmap below is realistic.



ABOUT US

Curtis Mayberry

Curtis is an electrical and software engineer leading development of enterprise applications for both electronic design automation and crypto equity applications. He has extensive experience introducing innovative enterprise applications. He has taken multiple applications from concept to enterprise deployment. He is dedicated to continuous improvement of both the applications he develops and the teams he leads. He earned a BSEE from Iowa State University and an MSEE from Georgia Tech.

Ajinkya More

Ajinkya has worked as a radio design engineer at Skyworks Solutions since 2018 and has an avid interest in blockchain technology and the decentralized economy. Prior to joining Skyworks he worked as a research engineer for 3 years in India for the Centre for Development of Telematics.

Ajinkya earned a masters degree from UC Davis in Electrical and Computer Engineering. His strengths include theory of computation, machine learning and programming languages.

Jonathan Crandall

Jonathan is an engineering project manager developing radio frequency power amplifier module chipsets supporting 5G, IoT and mobile handset product development. With over 15 years of experience in engineering design, product development, requirements capture, resource planning, and production ramp. He has diverse enterprise and academic experience drawn from Rockwell Collins, Skyworks Solutions, Micrel Semiconductor and teaching and research assistantships at Iowa State University. Jonathan also has 20+ years invested in personal portfolio management, brokerage tools UI, and a lackluster history of giving (and taking) questionable financial advice.

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